



## Tesla Meter / Gauss Meter with USB Interface and Analog Output

Portable microprocessor controlled precision Digital Tesla Meter / Gauss Meter

Model KOSHAVA5

### Features:

- Min / Max detection (peak detection)
- Auto ranging
- Switchable units: Tesla, Gauss, kA/cm, A/cm or Oersted
- DC and AC Magnet field measurement up to 10 kHz RMS
- Digital linearization and Temperature compensate
- USB Interface. Free Software for remote and data logging
- Menu language English and German
- Digital zero field adjustment
- Large graphical Display
- 10 mG (1 $\mu$ T) Resolution
- 0.2% instrument accuracy
- Rugged
- RoHS conform (lead free)
- 3 years Warranty (mechanical damages excepted.) Include calibrating certificate
- Made in Germany



### Description:

The new Tesla Meter / Gauss Meter KOSHAVA 5 combines the functionality, stability and precision of high-quality desktop units in a portable hand instrument.

At the development of the Tesla Meters / Gauss Meters KOSHAVA 5 great value was paid to easy and intuitive use of the device. The Tesla Meter is comfortably and simply operable by English and German menu driven with 4 keys.

**For every user the right measurement unit indication:**  
Depending of which kind of use and in which country of use the user prefer the different units Gauss, Tesla, A/cm, kA/m or Oersted. Over the menu the user can select his preferred unit and he can save time for the annoying conversions.

#### Always the optimal measurement range:

To be able to reach the optimal resolution always, the Tesla Meter / Gauss Meter KOSHAVA 5 is equipped with 4 measurement ranges (2mT, 20 mT, 200mT, 2T) The optimal measurement range can be either adjusted manually or setup automatically by using the Auto Ranging function.

#### Min / Max detection (Peak detection):

The Teslameter /Gaussmeter shows the negative and positive peak value in bottom area of the display. By pressing a key the peak values can be set to zero.

#### Precise in all measurement ranges:

In opposite to many other hall sensor based units at our Magnetometer KOSHAVA 5 each probe is measured in each range and each probe gets an individual table with linearization and calibration information. At the first start with a new probe the Tesla / Gauss Meter reads the calibration information and use this for the accurate calculations of the measure values.

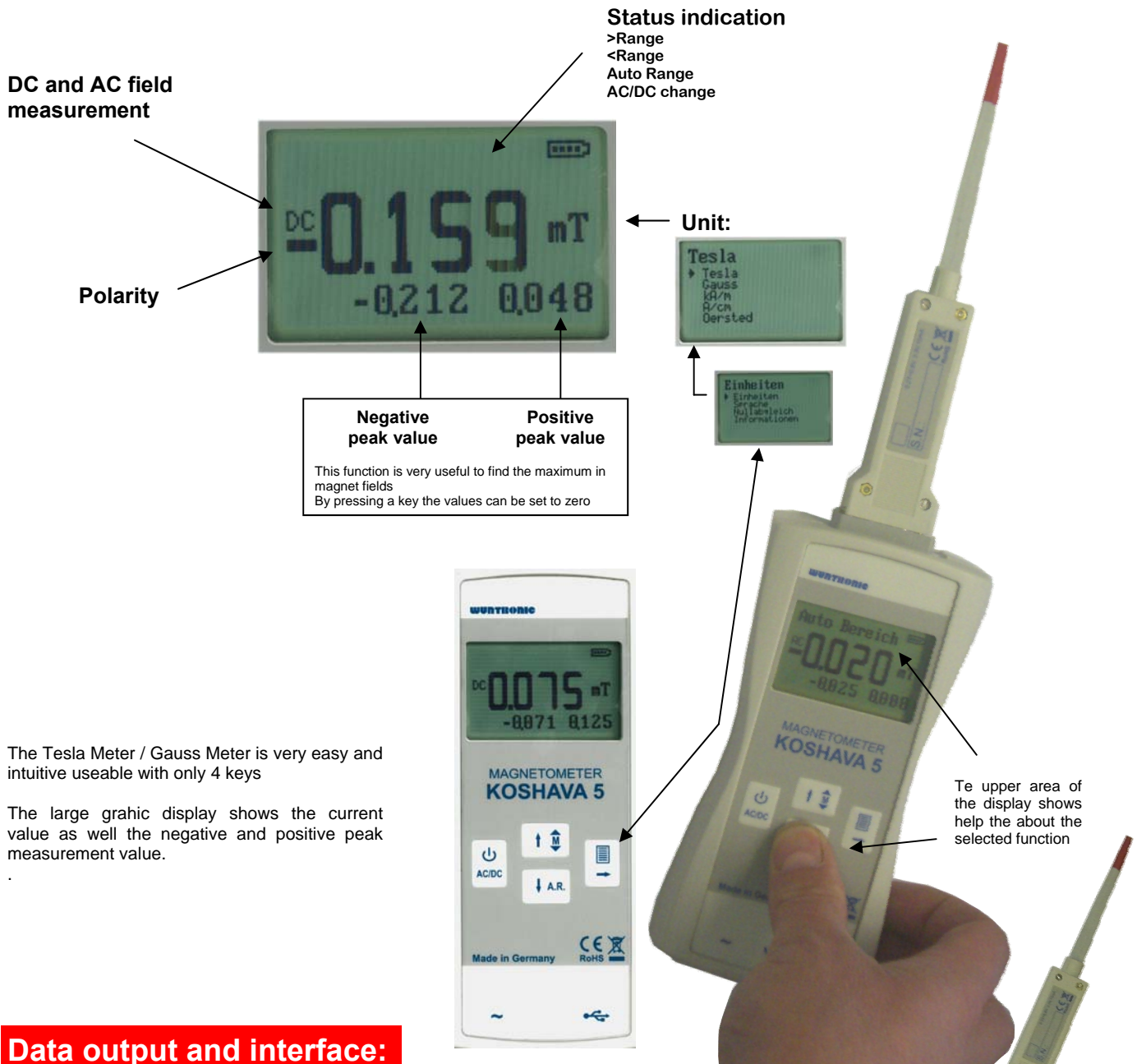
#### Analog output and USB interface:

The Tesla Meter / Gaussmeter KOSHAVA 5 is suitable for the automatic control and documentation excellently through its features the analog output and USB interface. The software enclosed free of charge shows the displayed values of the device on the PC and offers the possibility saving the reading in a interval between 0,2 seconds to 50 seconds. The acquired data can be saved in the Excel compatible CSV format. If the unit is connected with the USB interface the power is supplied from the PC.

### Applications:

- Assessment of magnetic materials.
- Analysis of magnetic circuits and components
- Measurement of residual magnetis
- Measure stray and leakage fields
- Measurement of absolute, and differential fields
- Testing, sorting, classifying magnets
- DC and AC motor testing
- Relay and solenoid test
- NDT Compliance Testing
- Loudspeaker test

## Menu Control and Display:

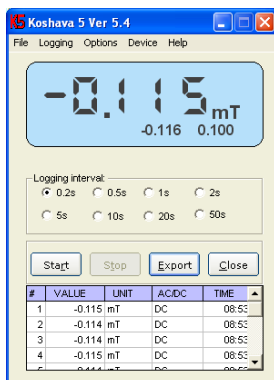


The Tesla Meter / Gauss Meter is very easy and intuitive useable with only 4 keys

The large graphic display shows the current value as well the negative and positive peak measurement value.

## Data output and interface:

**Analog output and USB interface:** The Tesla Meter / Gauss Meter KOSHA5 is suitable for automatic control and documentation excellently because its features analog output and USB interface.



The software enclosed free of charge shows the displayed value of the device on the PC screen and offers the possibility of saving the readings in the selectable interval between 0.5 seconds and 100 seconds to the PC hard disk. It's possible to select data format between the Excel compatible CVS or ASCII format.



### Remote control:

The KOSHA5 can be remote controlled by Computer with the USB Interface

### Powered by USB interface:

The Magnetometer KOSHA5 gets the power from the USB interface, if the unit is connected with the computer.

### Analog output



Analog output:  $\pm 800$  mV F.S. up to 10 KHz (not corrected value).  
 Connection by 2,5 mm mono connector

### USB Interface



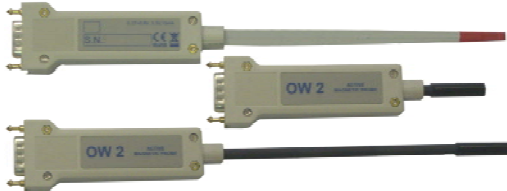
## Probe selection:



**Transverse probe**  
Model: OS2-T  
Order number: 1099260



**Axial probe**  
Model: OS2-A  
Order number: 1099261



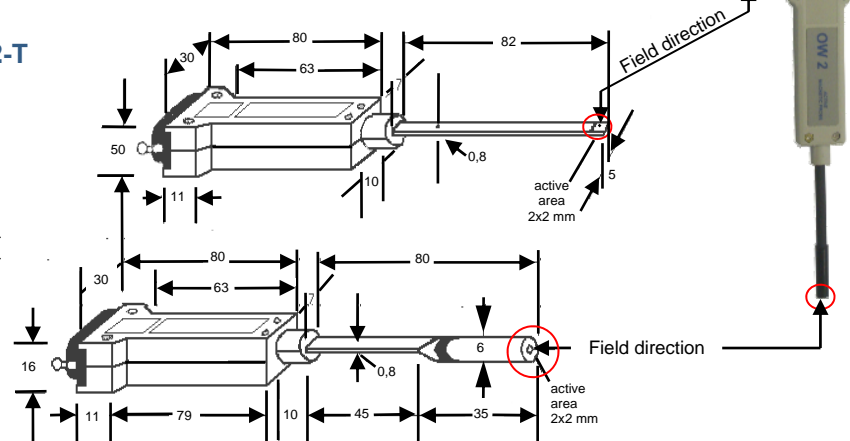
**Customized probes**  
On request we can deliver customized probes with special size and ranges.

Please call factory

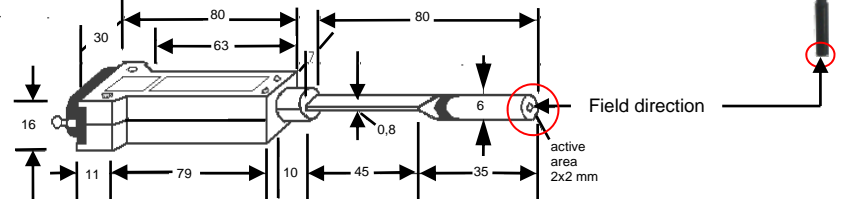
## Probe dimensions:

Dimensions in mm:

**Transverse probe Type OW2-T**



**Axial probe Type OW2-A**



## Scope of supply:



- Rugged upholstered carrying suitcase
- Tesla Meter / Gauss Meter (Order number 1099255)  
KOSHAVA 5 alternatively with Transverse or Axial probe (As an option both probes)
- 1 meter probe cable.
- USB cable to connect to PC
- User manual in English and German language.
- Software for displaying and logging the measure values
- Calibration certificate



Transverse probe (Order No. 1099255-T)

Axial probe (Order No. 1099255-A)

## Specifications:

Measurement Ranges: ..... 2 mTesla, 20mTesla, 200 mTesla, 2Tesla  
 20Gauss, 200Gauss, 2 kGauss, 20 kGauss  
 1,591kA/m; 15,91kA/m; 159,1KA/m; 1,591MA/m  
 15,91A/cm; 159,1A/cm; 1,591kA/cm; 15,91kA/cm  
 20 Oersted; 200 Oersted; 2kOersted; 20 kOersted

Auto ranging ..... The Tesla / Gauss Meter switch automatically in the optimal range

Display and switchable units : ..... 3 ½ digit display .  
 1,999 mT, 19,99 mT, 199,9 mT, 1999 mTesla  
 19,99 Gauss, 199,9 Gauss, 1,999 kGauss, 19,99 KGauss  
 1,591kA/m; 15,91kA/m; 159,1KA/m; 1,591MA/m  
 15,91A/cm; 159,1A/cm; 1,591kA/cm; 15,91kA/cm  
 19,99 Oersted; 199,9 Oersted; 1,999kOersted; 19,99 kOersted

Accuracy:  
 Device ..... 0,2% FSR  $\pm$  1 Digit  
 Probe ..... 0,3% FSR (DC) / 2% FSR (AC)  
 Long time stability: ..... 0,1% per year  
 Reproducibility: ..... 0,1% FSR (Units and probe)  
 Operating temperature: ..... 10° C to + 45° C  
 Storing temperature: ..... -20° C to + 55° C  
 Temperature coefficient: ..... 0,01% F.S. per °C (Unit and probe)  
 Functions: ..... DC, negative and positive peak value AC,

### Power supply:

Battery: ..... 3 x1,5 volts AA Batteries (for approximately 70 hour operating)  
 USB ..... with external USB power supply or USB connection to PC

### Dimensions and weight:

Dimension: ..... Unit 165mm x 78 mm x 34 mm  
 Weight: ..... Unit 255 Gramm (incl. Batterie)  
 Transvers probe 43 Gramm  
 Axial probe 55 Gramm

### Output and interface:

Analog output: .....  $\pm$ 800 mV F.S. up to 10 KHz not corrected  
 Connection by 2,5 mm mono connector

Interface: ..... USB 1.1

Software ..... Windows based Software for displaying and logging the measurement values at computer

## Order information:

Order No.	Model	Description
1099255	KOSHAHA 5	Precision Tesla Meter (Please select one probe)
1099255-T	SUB OS2-T	Transverse probe for new units
1099255-A	SUB OS2-A	Axial probe for new units
<b>Option</b>		
1099260	OS2-T	Transverse probe for KOSHAHA 5
1099261	OS2-A	Axial probe for KOSHAHA 5
1099163	ZG-1	Zero field camber for transverse and axial probes
1099271	NA-USB	External USB power supply